

# Change Log 2010

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## OpenCPN Version 2.3.0

Released 15 December 2010

OpenCPN Version 2.3.0 is released and available for immediate download.

OpenCPN is a free and Open Source navigation package running on Windows, linux and Macintosh computers.

Some features of OpenCPN include:

- Quilted Raster (RNC) and Vector (ENC, cm93) digital chart display
- Industry standard GPS receiver interfacing, with "moving map" on-screen vessel tracking.
- AIS receiver interfacing with configurable target safety monitoring
- Integrated Route, Track, and Waypoint database, with industry standard Import/Export capabilities
- Tide and Current prediction, with on-screen overlay of predicted data
- Broad International Language support

OpenCPN is designed to be easy to install, configure, and use daily.

OpenCPN may be freely downloaded and installed without cost, registration, or time limits.

New and Upgraded Features for OpenCPN Version 2.3.0

1. Integrated PlugIn architecture, allowing third-party development and deployment

of auxiliary features.\

2. Two useful PlugIns available immediately:

Graphical overlay of GRIB (weather) file data\

Dashboard for configurable on-screen display of ship's NMEA data.\

3. Enhanced Route, Track, and Waypoint management functions by selectable dialog.

4. Many new languages added to basic package, including:

Portuguese\

Estonian\

Greek\

Turkish\

Finnish\

Norwegian\

## 5. Support Garmin Host mode Route and Waypoint interchange and upload to remote

GPS receivers.\

6. Advanced internationalized Windows Program Installer.
7. Full support for North-up and Course-Up display of all chart types.
8. Expanded AIS target message decoding to include European Inland AIS specifications.
9. AIS Target List Dialog, allowing easy selection and monitoring of all active AIS targets.
10. Many, many improvements in the basic User Interface, while maintaining the ease-of-use that OpenCPN is widely known for.

We hope you enjoy the new features of OpenCPN Version 2.3, and we look forward to your continued feedback.

Download OpenCPN Version 2.3.0 at  
[sourceforge/projects/opencpn](https://sourceforge.net/projects/opencpn)

The OpenCPN Development Team  
Dave Register, Lead Developer

## OpenCPN Version 2.1.0

Released 24 June 2010

This Release is a major functional enhancement to OpenCPN.

Features of OpenCPN Version 2.1.0 include:

- BSBv3 raster and S57 ENC chart support.
- CM93 vector chart support.
- IHO S52 compliant display of S57 vector charts.
- Single-chart and Quilted display modes.
- North-up and Course-up display modes.
- Moving-map display mode.
- Route navigation with ship tracking functions.
- Waypoint navigation.
- NMEA 0183 GPS interface at selectable baud rate.
- gpsd library support.
- Autopilot output support.
- AIS input with full target tracking and collision alerting.
- Anchor watch/alarm functions.
- GRIB file input and display for weather forecasting.
- GPX Waypoint and Route input and output file support.
- Tide and Current prediction and display by location.
- Multi-language support.
- Linux and Windows compatible.

OpenCPN is an Open Source project, developed by a team of active sailors using real world conditions for program testing and refinement.

OpenCPN may be freely downloaded from [sourceforge/projects/opencpn](https://sourceforge.net/projects/opencpn)

## OpenCPN Version 1.3.6

Released 05 January 2010

This is a maintenance release containing the following enhancements:

1. Add basic GRIB file decoding and chart overlay display.
2. Improve and expand NMEA message type support.
3. Improved documentation.
4. Add modular international language support.
5. Assorted usability and reliability improvements.

See the Changelog for full details.

OpenCPN Version 1.3.6 may be downloaded from the following link:

[sourceforge/projects/opencpn](https://sourceforge.net/projects/opencpn)

Thank you for your continued interest in OpenCPN.

Fair winds to all,  
Dave and the OpenCPN development team

1/3/2010

Here is opencpn Version 1.3.6 RTM

Changelog:

- 87. Change symbol for "UWTROC always dry" to same as "LNDARE as point feature".
  - 88. Correct database logic preventing multiple duplicate chart additions.
  - 89. Correct keyboard control logic for manipulation of cm93 detail slider.
  - 90. Correct GPX output format using xmlns~~="opencpn"~~ opencpn extensions.
  - 91. Arrange to start opencpn with last displayed chart, scale, and zoom.
  - 92. Update Help file
- Release 1.3.6—

New Link

[www.southbaynetwork.com/opencpn/opencpn\\_136\\_setup.exe](http://www.southbaynetwork.com/opencpn/opencpn_136_setup.exe)

CVS updated.

Notes:

Changes are small and localized, except....

90. Unavoidably large internal rework of GPX code to support maintenance and to ensure valid GPX I/O format. GPX users please test as fully as possible.

I have switched back to original Windows install .exe method. Reason: Vista will not install the 1.3.6 MSI version unless any current version of opencpn is removed first. Unfortunately, the 1.3.4 un-installer also removes and deletes the user data files, including config, SENCs, and all routes/tracks/waypoints. Not good. This fault has been corrected in the 1.3.6 un-installer, so we are free to move to the MSI method on the next production release if we desire.

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3/28/2018

Here is OpenCPN Version 2.1.0 Beta 328

Windows package:

[http://www.southbaynetwork.com/opencpn/opencpn\\_210\\_setup.exe](http://www.southbaynetwork.com/opencpn/opencpn_210_setup.exe)

## 2.1.0 Changelog

1. Rework Toolbar to allow improved dusk/night color control.
2. Correct chart directory fault for non-existent directories.
3. Add green conical(nun) buoy symbol to Presentation Library.
4. Improve dusk/night color schemes for controls and menus.
5. Correct flawed logic on chart dir scan after charts have been moved on disk.
6. Improve BSB chart georeferencing algorithms, accounting for projection type. Thanks, Marco...
7. Update chart database format to V1.6, including auto-update of previous versions.
8. Expand Right-Click context menus.
9. Correct Makefile.am to use \$localedir variable for language file installations.
10. Implement Chart Quilting, F9 to toggle on/off.
11. Correct some CM93 cell offset calculations relative to WGS84.
12. Correct for upper/lower file naming conventions for charts, esp. cm93 dictionary
13. Improve accuracy of Distance/Bearing calculations for nearly E/W bearings.
14. Implement "Course-Up" Chart/Quilt rotation mode.
15. Improve AIS graphics, add AIS target type 21 (AtoN), add AIS toggle tool, etc. Thanks PjotrC.
16. Add simple auto logging function. Thanks PjotrC again.
17. Add optional Ships Bells sound. Thanks PjotrC.
18. Improve geodesic(Great Circle) calculations to account for elliptic earth model.
19. Correct fault in Route/EndRoute menu with empty route.
20. Correct chart startup ColorScheme as read from config file.
21. Improve RouteProp and GPX track import usability, thanks PjotrC
22. Correct wxSockets problem leading to poor performance or hangs with gpsd and S57 SENC creation.
23. Implement Anchor Watch, thanks PjotrC
24. Add Portugese translation, update Spanish translation.
25. Increase default MSW COMport numbers to 32, adjustable by configuration file.
26. Correct Makefile.am to honor -prefix option in configure.
27. Cleanup some source files to address licensing issues (georef.c)

28, Improve Track rendering, allow disjoint track import/export. Thanks PjotrC

29, Integrate RouteManagerDialog. Thanks, Anders.

Release Beta 2.1.0 Build 328

Notes:

Lots to talk about here.

Hopefully this new thread will pull together open discussions from a number of other threads in a trackable way.

Most of the changes you will recognize, or are self-evident.

6. BSB charts will use embedded georef polynomial equations if provided (BSB V3+). Otherwise, a stable low order polynomial derived from projections stated in BSB header is used, following the concepts developed by GPSThree. Seems much better to me for Merc and TMerc charts I've tested. The code really cleaned up nicely....

7. Necessary for quilting. Update occurs when you visit Toolbox→Charts page the first time.

10. The big one. Quilting is expensive both in memory and cycles. I often see quilts composed of up to 12 charts, all of which need to be open and ready to render at the same time. Consequently, there are some subjective constants buried in the code relating to how soon (on a zoom-in, say) to begin rendering larger scale charts in the quilt. I have set the constants to roughly match the behavior of another ECS which I respect. We may need a slider control for this parameter in Release. It's all about performance. Also, note that we don't allow skewed charts (as seen in BSB/NOAA Region6 [ICW](#), for instance) into the quilt. Deskewing these charts into a blittable format dynamically is unwieldy and slow. Also consistent with other ECS products. Finally, TMerc chart quilting is untested. I have not enough overlapping TMerc charts, I'm afraid.

14. Course Up Mode: This code uses a fixed 15 second COG averaging/update period for the rotation angle. A compromise, again relating to performance and [screen](#) jitter effects. This mode is only testable at sea or with a [GPS](#) simulator, obviously.

We need to add a [compass](#) rose graphic to the display to indicate North in this mode, I think.

Contributors?

22. The recently discussed hang on SENC creation. [Solved](#).

27. Relates to 18. New Geodesic calculations come from Proj4, [license](#) OK. Datum and other stuff from public domain sources. There are possible [license](#) exposures still. There is more work to do here if we want to use the external PROJ4 library for the various projections. Separate discussion is necessary for this whole issue as relates to debian compliance....

29. Integrated RouteManagerDialog substantially as provided, with tweaks from Psyches and me to support quilting. I've done minimal functional testing on this, but decided to include it in this Beta to consolidate the testing/review effort.

Wow....

This is a lot of new code. Much refactoring for quilting/rotation. Much new real code for georef algorithms, AIS, Routes, etc... Lots of contributed patches, all of which needed line-by-line merging with my new

stuff.

Also, lots of the early comments and suggestions for improvements to 1.3.6 fell off the list. If your favorite idea/bug didn't make the list this time, I apologize. I'd be delighted to hear from you again, to keep it on the big ToDo list

I expect at least some regression problems with this code. That is, things that used to work are now broken, perhaps in ways that provoke crashes. Also, some new functions have not really been stretched very hard in my alpha testing.

But it does build and run, so we release early and often. There is no real substitute for the variety of environments seen in our test group.

A caveat is necessary.

If you use 1.3.6 for real at-sea navigating, I'd suggest you keep a clean copy of it available to use daily as we work through the first few Betas of 2.1.0. I do....

CVS and git....

This Beta will use the [current](#) CVS schema for two reasons:

1. Minimize the development deltas a bit, in order to reduce risk of total breakage.
2. I personally need time to learn git.

I expect to transition to git in the near future as time permits. Seems like a good thing....

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3/31/2010

OpenCPN Version 2.1.0 Beta Build 331 is now available for download.

[http://www.southbaynetwork.com/openc...\\_210\\_setup.exe](http://www.southbaynetwork.com/openc..._210_setup.exe)

Changelog:

30. Improve quilting algorithm and WVS background for alternate chart types, esp cm93.
31. Correct cm93 offsets for certain cells having multiple M\_COVR regions.
32. Correct fault when deleting an active or current track.
33. Add RTOFS Current and Sea Temperature data to GRIB display.
34. Allow '=' key as substitute for '+' for Zoom-in.
35. Symbolize moored/anchored AIS targets with black ball.
36. Correct initial chart open scale to use last saved scale from config file.
37. Reduce cursor track timer interval for WXGTK builds to 2 msec.
38. Add Russian and Czech language support.
38. Correct crash on Track Delete with Track Properties dialog open.
39. Allow adjacent/coincident TrackPoint load from gpx file.

---Release Beta 2.1.0 Build 331---

This Build fixes several of the reported problems so far.

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4/15/2010

opencpn 2.1.0 Beta 415 is ready for download.

[http://www.southbaynetwork.com/opencpn/opencpn\\_210\\_setup.exe](http://www.southbaynetwork.com/opencpn/opencpn_210_setup.exe)

Changelog:

- 40. Improve quilt algorithm for highly under-zoomed quilts.
- 41. Correct cm93 cell offset logic. Warning....
- 42. Correct Makefile.am for new language support.
- 43. Correct logic for Delete Active track with RouteManager control...again...
- 44. Correct Down-Arrow key behavior
- 45. Correct error on logfile rename if no logfile is present.
- 46. Correct crash on right-click in blank area of quilt.
- 47. Correct quilt logic to preclude reentrancy/recursion on SENC build.
- 48. Load Bells sound files on demand only.
- 49. Tidy up CVS files. Requires build procedure change....
- 50. Improve small scale viewport algorithms, especially cm93 and chart outlines.
- 51. Correct BSB chart bug concerning corrupt embedded line index on some charts.
- 52. Correct COG Up mode on MSW build
- 53. Modify RouteManagerDialog for basic functionality.
- 54. Move "DeleteAllRoutes/Tracks" from context menu to RouteManagerDialog
- 55. Correct for AIS target speed > 102.2 Kts.
- 56. Correct ASI Query dialog for case where erroneous AIS transponder reports MMSI=0.
- 57. If AIS port is "None", do not show AIS tool in toolbar.
- 58. Implement ownship COG/SOG predictor length setting on Toolbox→Settings.
- 59. Implement basic quilting for cm93 charts.
- 60. Implement piotr's ideas for improved AIS icon visibility.
- 61. Implement AIS functionality recommendations regarding slow targets.

Notes:

CVS Updated.

41/59: Some F and G scale cm93 cells contain embedded offsets. These probably came from shifted datum on the original survey data. You can probe these by enabling M\_COVR objects in Toolbox→VectorCharts→MarinersStandard→SelectAll, enable Meta objects, and then right click on cm93 chart and look at "coverage" item. Offsets are in attribute "wgsox, wgsoy". Usually zero, sometimes not....

If we apply those offsets univervally, we get the offset problems noted in the previous Beta. If we do not apply the offsets, then some F and G cells are offset in the wrong direction. This becomes clear with quilting of cm93 (item 59).

What to do? We may have reached the ultimate level of accuracy of the cm93 dataset.

Check out your favorite large scale cm93 area, looking for offsets They will be obvious, on the order of

hundreds of meters.....

This is a real problem, since the affected cells are simply wrong, and potentially dangerous.

Ideas and screenshots encouraged.

53. RouteManagerDialog has basic functionality now. Could do more in this dialog. Ideas encouraged.

Known TODOs:

a. Quilt for TMerc: This needs some discussion. We cannot accurately include a TMerc chart in a Mercator quilt without a costly reprojection of the TMerc chart into Mercator. On the other hand, if all the charts in the quilt are TMerc, then we can build a reasonable TMerc quilt. This will be the case in some Scandinavian areas. This needs coding...

So, how do we handle the mixed-projection case? Ideas?

b. Will (Manimaul) is designing some new icons and UI elements which look to be an improvement in usability, and some sweet eye-candy. Requires some coding to implement, coming next....

c. We could use a "WayPointManagerDialog", similar to the "RouteManagerDialog". Code template is right there. Any takers?

d. Convert to cmake build process. In parallel development/test now. Thanks to sethdart. Will be implemented by next Beta.

Thanks in advance for the feedback

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2.1.0 Build 416 is ready for download.

Changelog:

- 62. Correct bug preventing AIS target display
- 63. Correct right-click hang in quilted mode.
- 64. Correct cm93 quilt bug on Windows
- 65. Correct S52 AP (Area Pattern) color logic on Windows build.
- 66. Correct Route import with co-incident points.
- 67. RouteManagerDialog: disallow activation of multiple routes.
- 68. RouteManagerDialog: disallow activation of tracks.
- 69. RouteManagerDialog: Correct eye icon display for Windows.

---Release Beta 2.1.0 Build 416---

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OpenCPN Version 2.1.0 Beta build 426 is ready for download and test.

[http://www.southbaynetwork.com/openc...\\_210\\_setup.exe](http://www.southbaynetwork.com/openc..._210_setup.exe)



- 70. Correct for some poorly formed .kap files in quilt algorithm
- 71. Correct cm93 quilting logic around Longitude zero.
- 72. Implement Manimaul's new chartbar quilt control.(experimental, incomplete)
- 73. Update some strings for gettext() translation.
- 74. Another (simpler) take on the gtk GSocket compile problem.
- 75. Incorporate Pavel Kalkan's new S52 rasterization rules and attribute definitions.
- 76. Continue [cleaning](#) up GPL licensing issues. (incomplete)
- 77. Correct to allow lower case scale characters in cm93 cell file names and directories.
- 78. Correct fault in [linux](#) printing...needs test in MSW
- 79. Remove the BigRedX, can re-enable by secret config option if you like it....
- 80. Add PiotrC ship's bell .WAV files, courtesy of Polish [Radio](#) Szczecin and friends. Thanks.
- 81. Correct lower status bar COG/SOG display to "—" on [lost GPS](#) signal.
- 82. Correct cm93 quilt mode Object Query selection.

—Release Beta 2.1.0 Build 426—

#### Notes:

- 72, Big change in quilt control, courtesy the designs of Will (Manimaul) I'll let him explain these features. More coming....
75. Pavel made major enhancements to the S52 symbolization library. Lots of new symbols, especially useful in Europe. Simple things like green nun buoys, which are not found in North America, so were not in the [rule](#) set.... Thanks, Pavel!
78. [Linux](#) print...sigh... the code in previous Releases and Betas could never have worked. Works now for my linux. Needs testing in MSW.
80. WAV files for ships bells produced in a professional studio and donated to us. Read the README in sounds directory. These WAV files do not currently play in linux, and an error is logged. They need a slight format tweak, which is in process now. Work well on Windows, though. Thanks, Piotr!

Also, general improvements to quilting algorithm too numerous to mention. Performance improvements, mostly, and the odd crash fix.

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5/01/2010

[OpenCPN](#) Version 2.1.0 Beta build 501 is ready for download and test.

#### Changelog:

- 83. Correct quilt reference scale calculations for some S57 ENCs, e.g Chicago area....
- 84. Correct logic error for [NMEA](#) \$xxGLL sentences with no checksum appended.
- 85. Correct for crash after database rebuild in quilt mode.
- 86. Limit Zoom-in range to sensible value.
- 87. Correct Windows RouteManagerDialog display and sorting method.
- 88. Correct Windows ChartInfo Popup window text formatting.
- 89 Implement new quilting control algorithm
- 90. Correct ship's bell .wav files for [linux](#) application.

## Notes:

89. New simplified hybrid quilting UI. It works like this:

- a. Chart selector bar at bottom is familiar model, representing all charts in the database containing the center point (lat/lon) of the screen.
- b. Choosing a chart on the bar (by clicking) builds a quilt with following properties:  
The chart chosen, plus all charts of smaller scale of the same type, projection, and skew are shown in the quilt.
- c. Right click menu on the bar allows excluding/including a particular chart from the quilt. Not currently saved in config...
- d. Charts appearing in the quilt show brighter color bars, as with [single](#) chart mode, except there are several shown at once.
- e. Note that a small scale chart in the bar may be available for the quilt, but be eclipsed by larger scale charts. In this case the brighter bar color may be confusing, since the chart is really not visible. We may need a special icon or color pattern to indicate this case.
- f. As a consequence of this new algorithm, it is not possible to combine chart types (Raster/Vector/Cm93) on one quilt, with one useful exception.
- g. Exception to (f). If the quilt does not cover all of the screen as composed, and cm93 charts are available, then cm93 will be used to fill out the uncovered region of the screen.
- h. We have eliminated the Toolbox quilt chart type options and the viz/inviz "eye" icon.

One problem I have not quite worked out is this: US NOAA ENC's have the unfortunate property that small scale charts contain "holes" where larger scale charts are available. Have a look at Chicago in SCM. Problem: If the ViewPort center is not exactly within a particular large scale cell, then that cell is excluded from the quilt, leaving a hole in the smaller scale chart containing it. Not what we want. So, I coded a special case for S57ENC. I add to quilt all [ENC](#) cells which overlap the ViewPort in any way. I generally don't like special cases. They come back and bite later...

So, there we have it. Another UI [concept](#) to debate. I'm looking for something that is really new here, not a simple clone of other existing [commercial](#) products. Do try to keep an open mind on this, and feedback is very welcome here.

This is Version 2, after all....

## Other notes:

TMerc Quilting: Still not right, but I have not given up yet.....

i18n: I have limited bandwidth, so am not incorporating incremental Beta Build .po files. Lets wait until we are about ready to release and update the .pot and .po/.mo all at once.

Release schedule: Target is June 1 for Version 2.1.0 release.

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3/05/2010

New code uploaded to CVS now. Corrections (hopefully) for some reported quilting bugs.

New quilt control symbology:

1. Eclipsed charts show an “eclipsed” control bar key.
2. Manually excluded charts show a closed dark “eye” symbol.

Will, I think we need another icon here, maybe a crossed out eye? I would rather not have an open eye for included charts, as this is the default. I think the control looks a little “busy” with all those eyes staring at me.

3. Right click on a chart brings context menu allowing exclusion of his particular chart under the cursor from the quilt.

Ptizef: Jean Pierre, I wonder about your performance issues. Is it in quilting only? BSB or cm93, or both? Have you tried Release build from VS tools? I find the Debug build can be slow, since it is un-optimized.

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5/14/2010

OpenCPN Version 2.1.0 Beta build 514 is ready for download and test.

(Well, not quite...The host for the Windows Setup Program Beta is not currently accepting my FTP upload, but we are working the problem.....

Source builders will be OK with CVS)

Changelog:

91. Update S52PLIB, thanks Pavel.
92. Correct FreeBSD compile issue with sigjmp\_buf.
93. Change S52 Object rendering priorities to areas→lines→points
94. Correct logic for painting background of incomplete quilt.
95. AIS symbol update:
  - a. General alert: Some Target incursion.
  - b. Info suppressed on: 1) Suppress alert on moored/slow 2) Suppress display of slow/moored
96. Correct for reversal of some S52 features with “ORIENT” attribute.
97. Correct NMEA0183 parser to allow [NMEA](#) sentences without checksums to be processed and used for positioning.
98. Add logic to use internally calculated georef solution if BSB embedded solution is poor. cf NOAA 514\_1.kap (Bering Strait)
99. Implement [NMEA](#) xxGSV Sentence, used for [GPS](#) status indicator.
100. (!) Implement Manimaul's new [GPS](#) and [compass](#) rose iconology. Thanks, Will.
101. Correct Tide/Current “Today/Tomorrow” tags. Thanks Cagney and nohal for the patches.
102. Implement automatic reference chart selection on quilt mode zoom operations.
103. Use hi definition graphics on chart rotate in course-up mode.
104. Add indicators to chart bar for skewed and TMerc charts.
- 105 Correct logic bug regarding Show [ENC](#) Text toolbar button in quilt mode.
106. Add Waypoint Description edit control to Mark Properties dialog

## Notes:

Lots of refactoring of BSB chart rendering in this Beta , brought on by performance issues in quilting. Bugs are expected....but I think we take two steps forward, and only one step backwards for this update.

99. MSW source builders will need to add gsv.cpp and gsv.hpp to their [project](#) files to complete a local build.

102: This is a recent request from Ptizef and others. It is an attempt to “just do the right thing” on chart zooming in quilt mode. There are some tweak parameters in the code that may need touchup. Comments appreciated.

Cagney's gtk region crash: Debug code is embedded in this Beta . opencpn will exit cleanly with interesting log entries on a potential region fault. Feedback please...

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[OpenCPN](#) Version 2.1.0 Beat Build 520 is ready.

[http://southbaynetwork.com/opencpn/o...\\_210\\_setup.exe](http://southbaynetwork.com/opencpn/o..._210_setup.exe)

## Changelog:

- 107. Correct logic for quilt zooming in a location with no [charts](#) available.
- 108. Correct RouteManagerDialog route-delete logic.
- 109. Correct Track and Grib toolbar icon selected state graphics.
- 110. Correct [Compass](#) Rose and [GPS](#) status icon locations on startup and resize.
- 111. Implement [Route](#) Leg course/distance display on right click of [route](#) segment.
- 112. Correct fault on DeleteAllTracks if track is active
- 113. Improve formatting of RouteProperties dialog.
- 114. Correct some DeleteAllRoutes logic with RouteProp and RouteManager open together
- 115. Correct logic on highlighting of marks in RouteProp dialog
- 116. Display tweak: If the only chart available on the chart bar is cm93, then do not highlight on rollover.
- 117. Implement chart [depth](#) unit display in quilt mode, if possible (i.e. all [charts](#) in quilt are same units)
- 118. Limit (again) the maximum underzoom of cm93 charts to accomodate large wide screens.
- 119. Correct fault found with missing config and chart database on initial startup.
- 120. Added indication of poor georef solution to chart info box.
- 121. Correct faults caused by excessive overzoom on some cm93 cells.
- 122. In Course-Up mode, implement one-shot timer for low definition rotation rendering on mouse pans.
- 123. Implement “OVERZOOM” indicator in quilt mode.
- 124. Correct cm93 symbolization of 2 way deep [water](#) routes.
- 125. Disallow quilting mode for all TMerc charts.
- 126. On sectorized lights, allow cursor pick for object query only near light location, not on light sector.
- 127. Correct fault in closing RouteProperties with route externally deleted.
- 128. Correct Windows hang with multiple RouteProperties dialogs accessed.
- 129. Improve chart selection logic on quilt pan.

130. Correct Routemanagerdialog→ZoomTo for excessive overzoom.

131. Correct logic error concerning repeated zero length tracks.

—Release Beta 520—

Notes:

125. Sigh...We just can't make TMerc quilting work without re-projection to a common meridian, I think.

Known problems:

1. Course-up in quilting mode. [Screen](#) clips oddly....
2. Course-up performance in general is not great. Needs work...
3. Euro IENC overlayed [ENC](#) cells. Still researching this one. Problem: There is no (clear to me) indication in the [ENC](#) file that this file is to be treated as an overlay.  
Of course, we can think of ALL ENC cells as overlays, and bring them onto the [screen](#) by a transparent masked BLIT operation. This is very slow, and would affect every S57 ENC, IENC overlay or not.. Probably not a good idea. I resist the idea of an "IENC Mode Switch". Still thinking on this.....
4. New Icons. In process.....

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CVS updated for Build 523a

Changelog (partial)

132. Correct [Depth](#) unit indicator in quilt mode.
133. Correct for chart skew values of both polarities.
134. Update chart info window for S57 ENCs.
135. Implement [NMEA](#) GGA sentence.
136. New Icons, thanks Will.
137. Correct quilt logic in Course-Up mode.
138. Correct StackUp/StackDown tool logic for quilting.
139. Correct for "Meters and decimeters" display
140. Correct RouteManager "To" field contents update.

Notes:

Especially interested in quilting anomalies, like Ptizef post #531.

Also, any "Fail to start" conditions, faults of any kind.....

135. Windows source builders will need to add gga.cpp and gga.hpp to VS [project](#) file. Testing of GGA sentence in real life would be good.

Real Beta maybe tomorrow....

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5/27/2010

[OpenCPN](#) Version 2.1.0 Beta Build 527a is ready for download:

Note the new link:

[http://opencpn.org/downloads/beta/opencpn\\_210\\_setup.exe](http://opencpn.org/downloads/beta/opencpn_210_setup.exe)

Changelog:

- 132. Correct [Depth](#) unit indicator in quilt mode.
- 133. Correct for chart skew values of both polarities.
- 134. Update chart info window for S57 ENC's.
- 135. Implement [NMEA](#) GGA sentence.
- 136. New Icons, thanks Will.
- 137. Correct quilt logic in Course-Up mode.
- 138. Correct StackUp/StackDown tool logic for quilting.
- 139. Correct for "Meters and decimeters" display
- 140. Correct RouteManager "To" field contents update.
- 141. Final icons
- 142. Add "Start/End" tags to GPX route/track output files
- 143. Save "viz/inviz" tag on GPX Routes and Tracks
- 144. Switch back to low definition on Course-Up chart rotation.
- 145. Implement CourseUp/NorthUp toggle by clicking on [compass](#) rose icon.
- 146. Implement support for newest gpsd library functions in [linux](#) builds.

—Release Beta 527a—

CVS updated.

Notes:

- 144. We needed to switch back to low-res rotation model for performance reasons, especially for toolbar access. This is an opportunity for improvement.....
- 145. Standard north-up icon is blue in color. Derived from the red icon. Course-up mode or skewed [charts](#) show the previous red icon, rotated appropriately. Clicking on the icon itself toggles between Course-up and North-up (or natural-up for skewed [charts](#).)
- 146. [Linux](#) users now have the most modern gpsd library support. If the library is available, the config process will detect it and link appropriately. Please test if you can. I think we will have some version dependency problems to iron out.

cmake: linux users are encouraged to move away from automake/autoconf tools and toward cmake. Auto-tool scripts will not be maintained on CVS after this release, and will be removed in due course.

i18n: Final .pot and .po files are available on CVS server. Please [email](#) your updates to me directly, [email](#) address in the toolbox→authors tab. I'll integrate as I get them checked in. With the new cmake process, I plan to remove the .mo files from the CVS server, since they are a make product.

debian: linux users are encouraged to build and test the .deb package from the cmake scripts. \$make package I plan for this .deb package to be the one uploaded to sourceforge for general download on this release. I suspect there may be dependency problems yet on this.....

=====

OpenCPN Version 2.1.0 RC 604 is ready for download and test.

[http://opencpn.org/downloads/beta/opencpn\\_210\\_setup.exe](http://opencpn.org/downloads/beta/opencpn_210_setup.exe)

Changelog:

- 147. Correct recognition and minimal handling of Polyconic charts.
- 148. Handle NMEA HDG message with no variation field.
- 149. Handle invalid data from libgps.
- 150. Handle old style GLL Sentences with 4 data fields.
- 151. Correct BSB rendering logic for auto-follow, quilted mode, in large scale.
- 152. Implement support for 9600 and 38400 baud GPS receivers. New ComboBox in Toolbox→GPS.
- 153. Correct ownship predictor rendering when ownship and predicted point are both offscreen.
- 154. Correct track logic to not add trackpoints in time mode if closer than .01 NM (~20 Metres)
- 156. Implement <alt-arrow> key viewport scrolling for 2 pixel resolution.
- 157. Add "LookAhead" mode for CourseUp displays when autofollowing.
- 158. On quilted S57 charts, Object Query info is now taken from largest scale chart at cursor..
- 159. Implement "GoTo Here" on right-click context menu.
- 160. Improve logic for selection of first destination RoutePoint on Route Activate.

—Release Beta 604—

CVS is updated.

Notes: This is a Release Candidate. Large bugs will of course be fixed. Small problems and feature additions may be deferred until the next maintenance release.

New .po files are requested from all translators. I think all messages are complete. .pot file available in CVS.

=====

6/06/2010

OpenCPN Version 2.1.0 RC606a is ready for download

[http://opencpn.org/downloads/beta/opencpn\\_210\\_setup.exe](http://opencpn.org/downloads/beta/opencpn_210_setup.exe)

CVS updated.

Changelog:

- 161. Correct "LookAhead" logic.
- 162. Correct active/selected route draw logic

- 163. Correct NMEA RMC sentence magnetic variation parsing.
- 164. Correct some ENC SENC creation logic faults.
- 165. Correct for fault under windows after two exit icon clicks.
- 166. Correct BSB chart logic with DTM datum offsets.
- 167. Correct cm93 "Updated" value in chart info box.
- 168. Update "cursor" and "from ownship" fields in status bar periodically

—Release Beta 606—

Notes:

- a. Very minor change in libgps support. This may still be a problem for some users.

Good Luck, and thanks again  
Dave

=====

607a is ready for download

[http://opencpn.org/downloads/beta/opencpn\\_210\\_setup.exe](http://opencpn.org/downloads/beta/opencpn_210_setup.exe)

Changelog

- 169. Correct vector chart performance regression re:164
- 170. Correct georef for TMerc charts with DTM offsets

—Release Beta RC607a—

=====

Version 2.1.0 RC 611a is on CVS now.

Changelog:

- 171. Adjust dialogs for 800×600 [screen](#) size.
- 172. Improve Toolbox→Charts dialog, thanks to SethDart
- 173. Properly deselect routepoints after right click and no context action.
- 174. Set default trackpoint icon as "empty" on GPX Track Input
- 175. Correct COG averaging algorithm near North.
- 176. Add MOB button to Toolbar
- 177. Modify Windows UnInstaller to remove all configs, [logs](#), SENCs, everything.
- 178. Partially correct for some poorly formed IENC [charts](#).

—Release Beta RC611a—

Windows setup coming soon....Bandwidth limited here...



## Notes:

178. Dutch IENCs do not crash, but some do not display well either. More work needed here, probably not happening for 2.1.0

## Issues still open:

1. [Garmin](#) 126 Route upload. Requires “GRMN” bidirectional protocol? May not happen for 2.1.0
2. GPX I/O on ',' locales. Inconsistent results. Should be decimal ('.') only in GPX output, and GPX input should convert from decimal to proper locale. Please test if possible.

=====

RC611b is ready for download.

[http://opencpn.org/downloads/beta/opencpn\\_210\\_setup.exe](http://opencpn.org/downloads/beta/opencpn_210_setup.exe)

## Changelog:

179. Lock [MOB](#) waypoint  
180. Add SethDart [AIS](#) target list.

—Release Beta RC611b—

CVS updated.

## Notes:

1. GPX ',' and '.' problem resolved.
2. This is the last call for .po files. Really. Some uploaded .po files have had problems. Please check yours carefully. The latest French .po was corrupted, and could not be used...
3. [Garmin](#) GRMN protocol and Dutch IENC corrections are deferred until the next release.

I think this is the one!

Thanks for all your help and patience as we iron out these final knotty details.

=====

[OpenCPN](#) Version 2.1.0 Beta RC613a is available

[http://opencpn.org/downloads/beta/opencpn\\_210\\_setup.exe](http://opencpn.org/downloads/beta/opencpn_210_setup.exe)

#### Changelog:

- 181. Correct RouteManager [Route](#) Delete logic
- 182. Correct shared routepoint delete logic
- 183. Partially compensate for some IENC internal errors.
- 184. Re-allow quilting of Polyconic charts.
- 185. Implement sound [alarm](#) for [Anchor](#) Watch excursion.

—Release Beta RC613b—

CVS updated.

#### Notes:

184. After some testing, I re-enable polyconic quilting. It seems that for large scale polyconics charts, it works well enough to simply consider them to be Mercator-ish. The quilt auto-scale algorithm seems to prevent highly mismatched quilts. However, I left in the note about poor chart accuracy in the info box, just for good practice.

185. Thanks to Cagney for the patch. Please note that the sound emitted on [Anchor](#) Watch excursion/incursion is the same sound that is used for [AIS](#) alarms. We need a brand new dialog to select sounds, and better sound management entirely. But this will work for now.

Thanks, and good luck

Dave

=====

[OpenCPN](#) Version 2.1.0 RC615a is ready.

Unfortunately, the opencpn.org site host is unable to accept uploads just now due to [maintenance](#). I will try to get the Windows Setup binary uploaded as soon as the site allows.

CVS is updated.

#### Changelog:

- 186. Correct [Single](#) Chart Mode switch logic for chart type change.
- 187. Correct [AIS](#) COG line draw logic for case when target and CPA are both offscreen.
- 188. Tweak [AIS](#) Target list dialog
- 189. Include Nohal's latest S52 PLIB symbolization [rule](#) set.
- 190. Modify AnchorWatch to allow setting watch for any waypoint closer than 0.5NM from ownship.
- 191. Modify About→Help to access help\_en\_US.html , help\_de\_DE.html , etc. depending on system locale.
- 192. Change locale loading location, adjust Windows Setup Application to suit.
- 193. Allow Lookahead Mode in north-up orientation
- 194. Fix a couple of Route/Waypoint delete bugs.

#### Notes:

191. Using the new scheme documented elsewhere. The help\_en\_US.html included in the Beta is old, and comes from the 1.3.6 Wiki. It is just for testing. If any testers can hack up a localized html of any sort in order to test the search logic, that would be good. An example could be called help\_fr\_FR.html , etc..... and placed in the doc directory.

192. This is thanks to a tip from SethDart. Regularizes Windows and [linux](#) builds. Better.....

193. Big Duhhhh here. Why didn't I think of that?

I'm off to sea for 2 days....

Good Luck.

Dave

=====

[OpenCPN](#) Version 2.1.0 RC615a is ready.

Unfortunately, the opencpn.org site host is unable to accept uploads just now due to [maintenance](#). I will try to get the Windows Setup binary uploaded as soon as the site allows.

CVS is updated.

Changelog:

- 186. Correct [Single](#) Chart Mode switch logic for chart type change.
- 187. Correct [AIS](#) COG line draw logic for case when target and CPA are both offscreen.
- 188. Tweak [AIS](#) Target list dialog
- 189. Include Nohal's latest S52 PLIB symbolization [rule](#) set.
- 190. Modify AnchorWatch to allow setting watch for any waypoint closer than 0.5NM from ownship.
- 191. Modify About→Help to access help\_en\_US.html , help\_de\_DE.html , etc. depending on system locale.
- 192. Change locale loading location, adjust Windows Setup Application to suit.
- 193. Allow Lookahead Mode in north-up orientation
- 194. Fix a couple of Route/Waypoint delete bugs.

Notes:

191. Using the new scheme documented elsewhere. The help\_en\_US.html included in the Beta is old, and comes from the 1.3.6 Wiki. It is just for testing. If any testers can hack up a localized html of any sort in order to test the search logic, that would be good. An example could be called help\_fr\_FR.html , etc..... and placed in the doc directory.

192. This is thanks to a tip from SethDart. Regularizes Windows and [linux](#) builds. Better.....

193. Big Duhhhh here. Why didn't I think of that?

I'm off to sea for 2 days....

Good Luck.

Dave

=====

RC611b is ready for download.

[http://opencpn.org/downloads/beta/opencpn\\_210\\_setup.exe](http://opencpn.org/downloads/beta/opencpn_210_setup.exe)

Changelog:

179. Lock **MOB** waypoint

180. Add SethDart **AIS** target list.

—Release Beta RC611b—

CVS updated.

Notes:

1. GPX ',' and '.' problem resolved.

2. This is the last call for .po files. Really. Some uploaded .po files have had problems. Please check yours carefully. The latest French .po was corrupted, and could not be used....

3. **Garmin** GRMN protocol and Dutch IENC corrections are deferred until the next release.

I think this is the one!

=====

OpenCPN Version 2.1.0 Beta Build 620 is available for download.

[http://opencpn.org/downloads/beta/opencpn\\_210\\_setup.exe](http://opencpn.org/downloads/beta/opencpn_210_setup.exe)

Changelog:

195. Save and restore AnchorWatch state on application shutdown and startup

196. Preclude potential div0 in AIS target CPA calculation.

197. Correct LookAhead coordinate logic for high latitude

198. Correct Route Render and Selection logic for common point routes.

199. Add install options to Windows installer.

200. Improve cm93 larger scale cell outline rendering logic

201. Completely remove Automake/Autoconf toolchain from CVS

202. Correct (some) Vector chart object query attribute units.

—Release Beta 620—

Notes:

1. I think (again) that this is a good release, except for embedded help file which has not been pulled yet. We'll see.

2. I have been mostly ignoring suggestions and patches this week that add functionality or change dialogs. Not even adding them to the TODO list. But I see some good ideas out there.

We'll start over on the patch integration after this version settles and releases. It is time.....

Thanks, and good luck

Dave

=====

6/23/2010

Opencpn Version 2.1.0 Build 623 is up.

[http://opencpn.org/downloads/beta/opencpn\\_210\\_setup.exe](http://opencpn.org/downloads/beta/opencpn_210_setup.exe)

[http://opencpn.org/downloads/beta/op...623-1\\_i386.deb](http://opencpn.org/downloads/beta/op...623-1_i386.deb)

Changelog:

203. Improve cm93 quilting for sparsely covered areas.

204. Correct bug for BSB charts with UNKNOWN projection.

205. Correct display property updates after Toolbox→VectorChart changes.

206. Improve CrossTrackError (XTE) calculation.

—Release Beta 623—

Notes:

1. en\_US help file included, as a snapshot of the Wiki. Incomplete, many errors and external links, but it is what it is....

2. I plan to update the version number and release this to sourceforge tomorrow (24 June) as the official Release.

3. I will accept last minute .po files until 1800 Z tomorrow.

4. Of course, if we find an immediate Dead On Arrival type of bug, all plans change.... Fingers crossed?

Thanks

Dave

## Github

Developers and Testers....

I have initialized a git repository on sourceforge:

You can view the repo through the sourceforge web page.

You can clone a local copy by:

Code:

`git clone git:opencpn.git.sourceforge.net/gitroot/opencpn/opencpn \`

This repo will be the “official” OpenCPN git spot. This is not to say that other private repos should not be utilized for development and code sharing. Far from it. It merely means that when we get into the next stage of Beta testing, this is where the RC's will come from, and this is where the Release will occur.

I will push changes to this repo (or maybe a branch) for future Betas and Releases. Developers may pull and merge with their local branches as needed. email me when your patches are ready, and I will pull, merge, and push to the sourceforge master ( or maybe a “bleeding edge” branch) as appropriate.

Developers are also encouraged to publish links to their own (github, etc) repositories, so that courageous testers can try out new features before they are integrated into the master. Sourceforge CVS is now dormant at Release 2.1.0 Build 624a git is a new thing for me, and there may be hiccups. Seems workable so far..... We shall overcome any difficulties as they arise Dave

=====

OpenCPN Version 2.2 Beta Build 710 is available.

(Well, not quite...I am having upload troubles to opencpn.org Beta server....) Changelog: 1. Relax debian package install dependencies.

2. Implement basic PlugIn functionality.

3. Adopt Jean-Eudes patches for RouteManagerDialog and context menu improvements. Very Nice!

4. Adopt Jean-Eudes patches for enhanced AIS Rollover graphics and options.

5. Add Portuguese\_Brazil language support.

6. Minor changes to facilitate Mac build. Source pushed to git origin. Notes: 2. The big one here. A separate thread will be started for discussion of PlugIns.

However, there are some points to note here.

a. Windows build has shifted to a DLL linkage model for the wxWidgets libraries. This is required in order to support a dynamically loadable plugin scheme.

This means that Windows source builders will need to build a DLL set of wxWidgets, and make sure these dll's are in the right place for debugging if required.

The Windows binary package contains prebuilt dlls which are installed in , e.g. {Program Files/OpenCPN/}. This approach works for at least Windows XP. This may not be the final home for these dlls. We may need to formally “install” them, in the Microsoft sense of the word, into the SXS tree, and use manifests for version control. I'm prepared for breakage here.

linux is “nicer” here, and just does the right thing (as usual...) 3/4. Thanks so much to Jean-Eudes (sethdart) for the excellent code work improving the RouteManager dialog and rollover rendering. Look at Toolbox→AIS for rollover options. Also, be sure to note route segment rollover function. Thanks in advance for the testing effort.

Good Luck

Dave

## API Version 1.0

Hello Developers and Testers... The OpenCPN PlugIn Architecture, API Version 1.0 has been released for Beta discussion and test. Design and Release Notes:

1. PlugIns are dynamically loaded libraries;  
{name}\_pi.dll for Windows  
lib{name}\_pi.so for linux.
2. Plugins are automatically detected when placed in the correct directory.  
Windows: {Where OpenCPN is}\plugins ex: C:\Program Files\OpenCPN\plugins  
linux: {prefix}/share/opencpn/plugins ex: /usr/local/share/opencpn/plugins
3. All detected, compatible PlugIns are loaded and initialized on application startup. We may want to develop a "PlugInManagerDialog" to allow selective loading...
4. Plugins are written in C++ and use the wxWidgets toolset. Interested developers are invited to consider other, more generic, toolsets and propose useful API extensions thereto. It should be possible to integrate with wxPython, for example...
5. The API is roughly defined in include/ocpn\_plugin.h, found in the source tree. More verbage needed here.

I have created two PlugIns: 1. grib\_pi

This is a PlugIn implementing the current GRIB overlay functionality. My alpha testing indicates that the functionality of GRIB in 2.1.0 is (almost) exactly duplicated. Full testing is required. Some developer(s) may wish to consider improved performance of this PlugIn. The code is fairly brutish in some places. Better caching and rendering are indicated.

I plan to release this PlugIn as part of opencpn Version 2.2. This PlugIn does a lot of interesting stuff at the API level.

- a. Toolbar Tool addition/management.
- b. Toolbox Tab page addition.
- c. Config file read/write.
- d. Chart overlay rendering.
- e. Private dialog management.
- f. Mouse tracking. Observant readers will note that this is exactly the functionality required for many chart overlay applications. Google KML file support is one. Some kind of Active Captain PlugIn is another candidate. Satallite radio weather....BlackBox radar...Others???

We could probably move AIS out to a PlugIn if we wanted to. 2. demo\_pi

Demo\_pi is, well, a demonstration. It can be used as the skeleton of a more advanced PlugIn development effort. I do not plan to release demo\_pi in the next official 2.2 Release. It is for developer discussion and use only. It doesn't really do much, anyway.

Demo\_pi exercises and demonstrates at least the following:

- a. Private window creation.
- b. NMEA data stream interception.
- c. Context Menu item addition/management. I expect demo\_pi will be the basis wrapper for the much anticipated "dashboard" function that is our most popular request. So, this is a start.

I am not smart enough to have anticipated all possible API requirements of a PlugIn. I expect as developers begin to actually consider writing PlugIns, we will have to add new methods, functions, and data types to the API specification. No problem with that. I hope we can stabilize the API for Version 2.2 release. We will make every effort to preserve backward compatibility where possible. The PlugIn build process is a work-in-progress. Developer comments and improvements regarding the cmake scripts are encouraged. I welcome spirited discussion of PlugIn development efforts here.

We will want separate threads for discussion of each PlugIn as each is ready for testing. Good Luck

Dave

[Opencpn](#) Version 2.2 Beta Build 716 is available

[http://opencpn.org/downloads/beta/opencpn\\_22\\_setup.exe](http://opencpn.org/downloads/beta/opencpn_22_setup.exe)

Changelog:

7. Correction for Windows cm93 quilting zoom crash.
8. Correct Windows Setup program to always copy wxWidgets DLLs on all install types.
9. Correct cm93 cell calculations for 64 bit processor
10. Correct .mo file install location for duplicate language locales (e.g. pt\_PT and pt\_BR)
11. Correct GRIB PlugIn Toolbar tool tooltip display.

Release Beta 716

git pushed

Good Luck  
Dave

Matt....

This is the scenario that we are targeting. Garmin GPS's will not accept route uploads via the normal [NMEA](#) sentences defined for this purpose. They require the Garmin Protocol for upload.

The [current](#) git repo code works with your configuration, i.e. a Garmin device with [serial](#) interface to the PC, either direct for some models, or thru a USB/Serial converter for others.

We shall have this function available in Beta shortly, if you don't want to build from source.

Thanks  
Dave

OpenCPN Beta Version 2.2.808 is now available for download and testing

[http://opencpn.org/downloads/beta/op....808\\_setup.exe](http://opencpn.org/downloads/beta/op....808_setup.exe)

Changelog:

12. Improve Cmake scripts to reduce build artifacts in source tree.
13. Correct fault occurring when GRIB dialog is open on application close. (FS#11)
14. Correct Mac Quitting flag inconsistency.
15. Correct Mac GPSD include file "policy\_t" typedef [collision](#).
16. Correct fault on delete track/route/waypoint while RouteManagerDialog is open (FS#26)
17. Do not show [route](#) segment rollover if the [route](#) is invisible. (FS#6)
18. Do not show chart bar context menu ""Remove this chart from quilt" unless in quilting mode. (FS#24)
19. Update [celestial navigation](#) PlugIn



20. Integrate Dashboard PlugIn prototype.
21. Implement Waypoint visible/invisible toggle in RouteManagerDialog (FS#21)
22. Shift Windows build process to MS VS2008, using VC90 Toolset and NSIS installer
23. Correct file location error found using azimuth sight in [celestial navigation](#) PlugIn.
24. Implement [Garmin](#) GRMN(Host) mode for waypoint and route uploading.
25. Improve Windows installer package for correct language support, shortcuts, etc. Thanks, Gunther.
26. Correct default values for GPX [import](#) of waypoints with no symbol specified in GPX file. (FS#20)
27. Correct UserIcons load directory (FS#43)
28. Correct Route Activate in RouteManagerDialog to use "best" routepoint to start. (FS#7)
29. Correct crash when alternately deleting routes and tracks in RouteManagerDialog. (FS#10)
30. Correct crash on deleting the "virtual" mark created during Route→Activate. (FS#8)
31. Correct bug losing all tracks after deleting one route or track. (FS#9)
32. Correct mark name rendering after change in MarkProp dialog. (FS#36)
33. Correct redraw of mark after Cancel in MarkProp dialog. (FS#35)
34. Correct Toolbox→Language to allow only those languages actually available for opencpn. (FSFeature #19)
35. Correct [AIS](#) and Route segment rollover window display near right side and bottom on [screen](#). (FS#16)
36. Correct Rollover multiline text rendering for MSW platforms. (FS#4,5)

#### Notes:

General Note: Thanks to all for the Flyspray bug/feature tracker use. It makes my life easier, at least when I have a good [internet](#) access. Note the (FS#??) notations in the Changelog.

24. The most significant feature enhancement of this Beta . If you are a [Garmin](#) user, please see the related thread on the forum. Also please note that GARMIN native USB devices are not (yet) supported for waypoint and route uploading. This Beta supports [serial](#) Garmin GPSs, whether or not interfaced to the PC via a USB/Serial converter. There are hundreds of Garmin models out there, and I expect quirks.

#### Open items for discussion:

- a. Still looking for a Mac build maintainer for the [project](#). If you are interested, let me know. The Mac port is in pretty good shape, I think, but I have no way to build, test, and upload a package for Beta download.
- b. RouteManagerDialog crashes on Win7 64 bit. Dunno why. We need a developer type with VS2008 installed on Win7/64 to do some building and tracing/debugging. Anybody like to give this a try? We can walk you through it....
- c. Many thanks to Gunther (Netsurfer) for taking on the Windows installer [maintenance](#) role. He is continuing the refinement of the installer script, and managing the final build and upload of the Beta Windows installers. Thanks, Gunther!

Thanks, and good luck testing  
Dave

Testers....

A quick fix to 808 is available for download:

[http://opencpn.org/downloads/beta/op....809\\_setup.exe](http://opencpn.org/downloads/beta/op....809_setup.exe)

Changelog:

37. Correct time\_t size problem in chart database ondisk image.

Release Beta 809

Notes:

37. Our old friend, sizeof(time\_t). Affects upgrades to 2.2.808 using older (??) chart database. Fixed in 809.

Those users who got 808 to work by deleting CHARTLIST.DAT will need to delete it again before running build 809. Sorry.

Sorry for the speedbump. That's Beta testing, though....

Good Luck

Dave

Hello Testers!

OpenCPN Beta Version 2.2.823 is available for testing today.

Changelog:

38. Correct MSW bug concerning language selection after chart directory addition/deletion.

39. Implement PlugInManager GUI (Toolbox→PlugIns).

40. Implement local caching of cm93 chart outlines for improved performance.

41. Implement delayed calculation of [Route](#) Leg Rollover trigger.

42. On [Linux](#) and Mac builds, modify libgps search and load to use ONLY libgps.so.19

43. Add Estonian language support

44. Increase RouteManagerDialog Icon column width (FS#21 redux)

45. Correct [AIS](#) Rollover text from “degree symbol” to “Deg”. (FS#5 redux)

46. Correct Win7 crash in RouteManagerDialog

47. Update Dashboard PlugIn

48. Correct chart database logic for duplicate chart [removal](#).

49. Correct crash occurring when deleting [route](#) containing mark for which MarkPropDialog is shown. (FSStable #27)

Release Beta 823

git repo updated.

Windows installer application to be available “shortly”. Earth calling Gunther!

#### Notes:

39. PlugIn Manager GUI. Simple, could do a lot more. Comments appreciated. PlugIn authors please note a very slight change to API regarding descriptive text strings shown in the GUI. I have already appropriately patched the 4 PlugIns in git.

46. An attempt to correct a difficult-to-reproduce bug. Win7 users encouraged to test and report results. Thanks to Fred Babian for debugging this issue in situ.

47. Thanks to SethDart. Interested users please join in the separate thread to help refine the functions of this PlugIn. Artists especially encouraged.

48. Under some conditions, the wrong chart is selected when two or more [charts](#) have the same filename but different Edition dates. In other conditions, both [charts](#) are selected. The code should select the most recent of two chart files having the same name, wherever they appear in the file tree, and whatever the order of specified directories in the Toolbox→Charts dialog..

I would appreciate it if the original posters of Flyspray tasks addressed by this Beta release could update those tasks with comments indicating the [current](#) state of “their” bugs. Fixed, or still broken? Thanks.

Thanks in advance for the testing and reports.

Dave

OpenCPN Version 2.2.918 Beta is available for download.

#### Changelog:

50. Correct logic error in GPX waypoint [import](#) which required restart of ocpn to show points in RouteManagerDialog. (FS#72)

51. Implement multi file selection capability for GPX file [import](#). (FSFeature #48)

52. Correct AIS decoder to allow AIS Version -3 for Message type 5. (FSStable #64)

53. Implement (some) AIS Region 200 (Euro Inland) binary AIS messages.

54. Correct [route](#) leg parameters on [Route](#) Reverse in RouteManagerDialog (FS#76)

55. Correct GPX Route/Track Import to properly reflect ETE or Timestamp as appropriate. (FS#71)

56. Correct CourseUp/Lookahead mode ownship drawing position. (FS#74)

57. Correct bug in Route leg rollover processing (FS#69)

58. Improve Route creation and RouteManagerDialog logic when using existing waypoints.

59. Correct some German spelling errors in tide harmonic files. (FS#85)

60. Correct S52 symbolization rules (display priority) for SLCONS. (FS#84)

61. Add capability for user defined loadable ownship icon.

62. Implement ownship position tracking via AIVDO messages

63. Improve Route leg mouse rollover detection logic. (FS#68)

64. Updated Graphics for toolbar, etc. Thanks to Will and Sethdart....

65. Correct PlugIn Toolbar logic to allow adjacent PlugIn tools. (FS#89)

66. Implement Dusk/Night colors for PlugIn Toolbar Tools (FS#90)

67. Improve [BSB](#) quilting algorithms

68. Correct AIS target ETA math.

69. Improve AIS target list. Select on specifictarget now opens target info dialog. Thanks to Flavius Bindea

- 70. Improve GRIB PlugIn file selection logic and date/time display. Thanks to Flavius Bindea (again).
- 71. Correct fault on delete of active AnchorWatchPoint. (FS#97)
- 72. Improve AIS target symbology by using anti-aliasing renderer.
- 73. Implement AIS Target Acknowledge Timeout function. (FSFeature #104)
- 74. Implement AIS Base Station decode and sybolization.
- 75. Correct [Current](#) arrow rendering direction for Course-up mode. (FSStable #105)
- 76. Correct error on RouteProperties Close by Window Frame "X" (FS#45)
- 77. Change LookAhead logic to avoid chart centerpoint jumping while at [anchor](#) or during slow maneuvering.
- 78. Correct crash panning from the only available raster chart to cm93 chart while quilted. (FS#107)

#### Notes:

- 50. Significant refactor of GPX I/O code. Need extensive testing with lots of foreign [GPS](#) imports, if you please.
- 59. We could use a volunteer to edit the entire harmonic.idx and harmonic files with a good Unicode editor to fix up some broken place names. Please see FlySpray #106
- 61. By request. Simply put a file "ownship.xpm" in the Usericons shared data directory. This becomes your ownship icon.
- 67. Minor change in [BSB](#) quilting logic. May be a performance hit, probably acceptable. Provides better chart rendering on mouse pans and zooms.
- 68. The problem here was the arrival ETA when it was crossing month boundary.
- 73. By request, good idea. Could use some suggestions regarding wording of Toolbox→AIS option legend. Interesting note: Today I transited [New York](#) Harbor. At one time there were 127 live AIS targets, virtually all with a CPA of less than 2.0 NM. Lively [screen](#) display, to say the least. Happy to have the Acknowledge Timeout function.
- Also, the US Coast Guard was enforcing 175 yard [security](#) keepout zone around the United Nations building.
- Nice application for the [radar](#) range ring display.

Happy testing, and good luck  
Dave

[OpenCPN](#) Version 2.2.1004 Beta is available for download.

#### Changelog:

- 79. Correct quilt toggle logic in look-ahead mode. (FS#112)
- 80. Correct crash on deleting waypoints contained in track (FS#117)
- 81. Harmonize all Unicode location strings in Tide/Current dataset, and dispaly correctly. (FS#106) Thanks Thomas (Cagney)
- 82. Migrate Windows wxWidgets libraries to Unicode flavor, in support of (81) above.
- 83. Implement NorthUp mode for skewed Raster [charts](#) (FS#111)
- 84. Improve performance of "Wheel Zoom to Cursor" option. (FS#??)

85. Correct format printing of [AIS](#) MMSI numbers to 9 digits width always. (FS#116)
86. Increment Plugin API Version to 1.1 (FS#110)
87. Improve display of large UserIcons in RouteManagerDialog (thanks T. Haller)
88. Implement improved Toolbar→RouteManagerDialog icon. Thanks Will. (FS#129)
89. Omit drawing ScaleIn/ScaleOut icons and chart selector bar when chart stack contains only one entry. (FSFeature#12)
90. Improve accuracy and responsiveness of libgps (gpsd) interface. (FS#131)
91. Correct some errors with waypoint visibility in RouteManagerDialog (FS#124)
92. Correct config save and refresh logic for Track-to-Route conversion. (FS#126)
93. Improve [AIS](#) symbology and query dialog (FS#113)
94. Correct route-shared waypoint logic. (FS#123)
95. Improve config and navobj file update logic for improved performance. (FSFeature#125)
96. Correct zoom-out, pan north crash with cm93 quilt. (FS#132).
97. Correct/validate end-to-end precision of [GPS](#) lat/lon values to better than 1 metre precision throughout. (FS#134)
98. Move Windows local data and config file [storage](#) from User data dir to System data dir.
99. Implement sorting of tracks in RouteManagerDialog (FS#15)
100. Add additional TARGET\_LINK\_LIBRARIES to cmake for unix build. (FS#53)
101. Optimize [documentation](#) png image files for size reduction. Thanks Hamish (FSFeature#133)

Release Beta 1004

Notes:

86. Plugin authors please note change. Plugins will not load and activate if the declared API version is not compatible.
98. This change necessary to support the new Windows package installer, coming soon.

Thanks for all your good work.

I hope to spend some more time shortly on the Feature Request list.

For planning purposes, I am planning to release version 2.2 officially around the end of November.

Stay tuned!

Dave

[Opencpn](#) Version 2.2. Beta build 1007 is available for download.

Changelog:

102. Revert #98 above, pending new Windows installer.
103. Disable Tide station harmonic cacheing.

Notes:

Reminder:

Please check and update your Flyspray tasks as you validate the features and fixes in this release.

Thanks, and good luck  
Dave

## Netsurfer Installer

Hi there....

Gunther (NetSurfer) has created a very capable installer for Windows which will debut in the next Beta . I'm excited by the prospect of having a smooth reliable installer that understands localization.

Now, we need to localize it.

I have uploaded to git repo the template files used for localization. They are in a private format compatible with the NSIS installer scripting language, and their structure should be clear. They may be edited with any modern text editor.  
(Gunther: any recommendations? Are these UTF-8?)

They may be found in {root}/buildwin/NSIS\_Unicode/Language files

They individual language names will be obvious. Take a look at the completed German translation to get the idea.

So, I ask for volunteers to edit these { }. nsh.in files for their language of choice. Send the edited files to me by email, and I will merge them into the coming Beta .

Thanks in advance for all your effort here, and a special pre-thanks to Gunther.

Dave

[Opencpn](#) Version 2.2. Beta build 1007 is available for download.

Changelog:

- 102. Revert #98 above, pending new Windows installer.
- 103. Disable Tide station harmonic cacheing.

Notes:

Reminder:

Please check and update your Flyspray tasks as you validate the features and fixes in this release.

Thanks, and good luck  
Dave

[OpenCPN](#) Version 2.2 Beta Build 1025 is now available for download.

### Changelog:

- 104. Correct [AIS ROT](#) value in Target Query (FS#149)
- 105. Update Tide/Current HARMONIC file for improved location name formatting.
- 106. Correct Lat/Lon formatted printing. (FS#156)
- 107. Add [OpenCPN](#) welcome message to .pot file
- 108. Correct bad encoding of some data (Font descriptors) in config file. (FS#157)
- 109. Accept comma as decimal delimiter in MarkProp Dialog (FS#141)
- 110. Add "rename waypoints" dialog to context menu invocation of [Route](#) Reverse. (FS#146)
- 111. Correct "Remove this chart from quilt" logic when only one chart is available. (FS#148)
- 112. Correct crash in RouteManagerDialog [route](#) delete of route actively under creation. (FS#152)
- 113. Correct error in geolocation with TMERC [charts](#) with "Show Skewed charts as North-Up" active.
- 114. Correct rendering of VERCLR and VERCLL to match selected [depth](#) units on S57 ENCs.
- 115. Correct Tide/Current time calculations near DST transition date. (FS#168)
- 116. Correct cm93 cell outline rendering near Prime Meridian. (FS#167)
- 117. Correct [Garmin](#) A201 protocol route uploading. Thanks to Jim Dowling. (FS#163)
- 118. Correct Font item selection drop list for duplicate entries on language change. (FS#143)
- 119. Correct S52 [ENC](#) height and width attribute formatting for Ft./Fathoms settings. (FS#169)
- 120. Correct [linux](#) GnomePrintCups warning message on cli invocation. (FS#99)
- 121. Correct symbolization of buoy OBJNAM size. (FS#158)
- 122. Improve AIS target rollover and context menu consistency. (FS#115)
- 123. Improve Route/Waypoint/Rollover selection logic (FS#70), Thanks, JP.
- 124. Add compile condition to allow optimized inline assembler code only on Intel 386 compatible architecture.
- 125. Optimize language selection pulldown box in Toolbox→Language (FSFeature#19)
- 126. Correct chart database for Unicode chart file names.
- 127. Improve Route segment selection math for highly zoomed routes. (FS#170)
- 128. Bold Highlight active route in RouteManagerDialog (FSFeature#78)
- 129. Revert (partially) FSFeature#12, Changelog #89 above.
- 130. Correct crash on some [ENC](#) creation (FS#155, FS#175)
- 131. Integrate new Windows Installer package. Thanks very much to Gunther (NetSurfer)
- 132. Major update to Dashboard PlugIn. Thanks to Jean-Eudes (sethdart).
- 133. Build-option port to wxWidgets 2.9.1(experimental)

### Release Beta 1025

#### Notes:

- 105. Many thanks the Thomas (cagney) for fixing up the remaining Unicode location names.
- 107. Translators please take note!
- 131. This is a big one. Many thanks to Gunther. I know you will like it.
- 132. Ditto. Jean-Eudes has worked like a trooper to bring this PlugIn up, Kudos are due.
- 133. Planning for the future, and also to expedite the wxMac port. See the separate thread for instructions.

Thanks for all of your useful feedback. Really.

There is a lot that is new and improved in this Beta , and I look forward to our November formal release



of OpenCPN Version 2.3.x

Enjoy!

Dave

[OpenCPN](#) Version 2.2 Beta Build 1026 is now available.

Changelog

134. Correct multiple native language entries in language selector combo box.

135. Correct [NMEA](#) checksum calculation errors.

136. Correct/Update Dashboard PlugIn (FS#189).

Release Beta 1026

Please check/edit/close your Flyspray tasks as you test your “own” problems. I'd like to get the Flyspray tasklist beaten down a bit.

Good Luck

Dave

[OpenCPN](#) Version 2.2 Beta Build 1111 is now available for download.

Changelog:

137. Correct Route/Routepoint select and rollover logic for near-coincident and hidden points. (FS#70)

138. Correct crash on Tide/Current window switchout (FS#190)

139. Correct crash in CelestialNavigation PlugIn. Thanks, Chuck. (FS#195)

140. Correct GPX Import/Export timestamp formatting. Thanks to Jim Dowling for code patch. (FS#194)

141. Correct chart bar rollover logic for cm93 quilt mode. (FS#196)

142. Correct [AIS](#) Rate-of-turn display in TargetQuery (FS#149)

143. Correct [AIS](#) target symbolization when Rate-of-turn is zero.

144. Correct TrueScale calculation and consequent overzoom factor and cm93 chart outline display (FS#???)

145. Correct Object Query Lat/Lon of isolated Soundings (SOUNDG) (FS#192)

146. Implement sorting of RouteManagerDialog columns (FSFeature#178)

147. Correct attribute unit displays for ENC's in Ft. & Fathoms mode. (FS#169)

148. Update RouteProperties dialog for Tracks to show leg and average speed. (FSFeature#56)

149. Update PlugIn API to allow Toolbar tool state toggle. (FS#203)

150. Correct S52 symbolization of RESARE(4) (Nature Reserve) to include OBJNAM information.

151. Add new route\_manager.svg icon source to build tree. (FS#208) Thanks Will.

152. Add Norwegian Bokmaal translation. Thanks, Frode Lylum (HotRod)

153. Correct multiple chart directory “Delete Selection” in Toolbox→Charts (FS#207)

154. Update Dashboard PlugIn for large font sizes and Tool toggle (FS#184) (FS#198)

155. Correct [Garmin GPS](#) (GRMN mode) [serial](#) port interface on Windows builds.



- 156. Improve performance of large route/track manipulations. (FS#126)
- 157. Improve S52 [ENC](#) symbolization of Wrecks (FS#165)
- 158. Implement "Jump To Position" context menu item. (FSFeature#42) Thanks to Pavel.
- 159. Implement CM93 Manual Offsets with tools Thanks, Flavius.
- 160. Upgrade Windows vcredist\_x86.exe to [Service](#) Pack 1.
- 161. Allow lowercase file names for cm93 dictionary files (FS#216)
- 162. Improve accuracy of Lat/Lon text entry fields (FS#141)
- 163. Implement configurable AIS target tracking. (FSFeature#52)
- 164. Correct ownship drawing logic when COG predictor length is zero.
- 165. Disable "Remove Chart From Quilt" context menu if only one chart is available to quilt. (FS#225)
- 166. Convert [route](#) and waypoint [storage](#) from config file to navobj.xml . Thanks to Pavel Kallian.
- 167. Correct Status bar COG display when [NMEA](#) COG data is unavailable or undefined. (FS#220)
- 168. Correct PlugIn build rules to prevent symbol overlap. (FSDashboard#215) Thanks to Jim Dowling.
- 169. Correct AIS Range/Bearing/CPA to "unavailable" when ownship [GPS](#) is not present. (FS#219)
- 170. Correct crash on delete of Routepoint (FS#227)
- 171. Implement new PlugIn Manager UI (FS#228) Thanks to Jean-Eudes (Sethdart)
- 172. Correct libgps logic for [lost](#) daemon response. (FS#221)

## Release Beta 1111

### Notes:

- 152. Norwegians take note!
- 155. GRMN mode [route](#) uploads should work now. Please check this carefully if you have the [hardware](#).
- 159. This is important. In large [parts](#) of the Pacific, cm93 is offset enough to be just dangerous. Flavius has built a nice tool to allow user entry of cm93 cell offsets. Try it out. We have ideas for further improvement in this area.
- 160. Win7 Starter (netbook) users please note.
- 163. By popular request. AIS tracks are not saved between [OpenCPN](#) runs. They are transient.
- 166. Tremendous effort by Pavel to bring this up. All route/track/waypoint info is now stored in {config dir}/ navobj.xml in GPX compatible format. Your existing route and waypoint info which is currently stored in the config file will be automatically converted to the new [storage](#) method. What made this change possible was Pavel's seeking out and porting a newer, much faster, and smaller xml generator/parser. Open source, of course. Great Job, Pavel!
- 171. Big effort here from Jean-Eudes to bring us a modern UI for PlugIn management. Thanks.

Plugins: CelestialNavigation PlugIn removed from build tree. We are working to move to a system of hosting contributed Plugins on the [opencpn.org](#) site. Stay tuned for more info on this. Your [current](#) celestial PlugIn, if already installed, will not load with this Beta release due to an API version update. Sorry for the temporary inconvenience.

i18n: pot file updated. Please check and update your translations. I do not expect many more translatable message changes before the official release of Version 2.3

Whew. With all the extra help on this Beta , I feel more like a ringleader than a programmer. This is great. Our team is really getting some traction now. Keep up the good work,

### Roadmap:

I hope to release OpenCPN Version 2.3 to the public around the first of December, assuming we get no major problems. I want to slow down the rate of code change following this (1111) Beta , and look for stability above all. Maybe the Wiki [documentation](#) can catch up....

Many Feature Requests will not make this cut. If you feel very strongly about an easy-to-implement Feature, let me know and I'll see what can be done.

I guess our work is appreciated, since we are currently getting around 250 sourceforge package downloads per day.

Who would have thought.....

Anybody got a good idea for how to estimate the number of actual worldwide users?

Thanks for your continued interest in and effort on OpenCPN.

Your coach

Dave

OpenCPN Version 2.2 Beta Build 1124 is available for download.

Changelog:

- 173. Improve error checking and recovery on [Garmin](#) GRMN mode route/waypoint uploads.
- 174. Correct Waypoint and Track sorting in RouteManagerDialog (FS#178)
- 175. Correct behavior when cm93 offsets are disabled in Toolbox→VectorCharts (FS#236)
- 176. Improve libgps error [lost](#) signal detection logic (FS#221)
- 177. Correct xml subsystem Unicode file name handling.
- 178. Correct AIS Rollover window position logic. (FS#240)
- 179. Improve PlugIn Toolbar tool placement logic (FS#172)
- 180. Implement "1 button" [MOB](#) tracking. (FS#147 Partial)
- 181. Completely remove [Celestial Navigation](#) PlugIn from git repository.
- 182. Improve again selectability and editability of very close RoutePoints(FS#70)
- 183. Improve AISTargetList Dialog performance/useability.(JE Onfray)
- 184. Optimize Toolbox dialog for smaller [screen](#) resolutions.(FS#239)
- 185. Correct Toolbar display refresh when no [charts](#) available at lat/lon.
- 186. Correct default GPX [Import](#) object visibility.
- 187. Update Generic "LIGHT" icon for GPX [Import](#).
- 188. Improve AIS BlueFlag symbology/colors.
- 189. Correct waypoint selection logic. (Pjotr).
- 190. Improve track speed calculation considering first point activation time. (FS#56) Thanks jp
- 191. Restore [route](#) creation pencil cursor, and improve accuracy thereof. (FS#247)
- 192. Reorganize cm93 offset context menu items (FS#250)
- 193. Extend default config options to include "ShowSoundings", etc.
- 194. Improve [Garmin](#) USB Driver LOS and error handling.
- 195. Correct AIS tracking startup condition pending good target position data.
- 196. Improve Skewed chart georeferencing of objects like waypoints and AIS targets.
- 197. Correct [Compass](#) instrument font in Dashboard PlugIn
- 198. Add International localization support to PlugIns. (FS#200) Thanks, Sethdart

- 199. Implement color scheme support for RouteManagerDialog. (FS#230) Thanks to Sethdart
- 200. Add separate translatable strings for "CM93 Offset On"/"CM93 Offsets On" (FS#251)
- 201. Add local Font management to Dashboard PlugIn (Thanks again Sethdart)
- 202. Implement configurable [NMEA](#) COG/SOG averaging algorithm (FS#222)

Release Beta 1124

Notes:

173 and 194. Lots of work on the Garmin device support. Affected users are asked to test with no mercy.

198. PlugIns now utilize their own individual .po translation files. Translators are invited to edit and contribute their translations. The .po files may be found in the build tree at {opencpn root}/plugins/{plugin\_name}/po

Observant readers will note the massive contributions from Jean-Eudes (sethdart) on this release. I personally have noticed some very late-night [email](#) postings, way past my normal bedtime considering time zone differences. 😊 We thank you sincerely.

Roadmap: This is "Feature Freeze" for Release 2.3.

The only changes I plan to consider are a) especially nasty bugs, and b) Language file updates. But, of course, I'll stay flexible in the interest of a "good" release.

Happy testing!

...and Happy Thanksgiving in the US

Dave

[OpenCPN](#) Version 2.2 Beta Build 1207 is available for download.

Changelog:

- 203. Correct initialization of [NMEA](#) Filter [history](#) tables.
- 204. Correct TrackPoint name visibility property on Export/Import.(FS#253)
- 205. Correct some problems with [linux](#) locale selection.
- 206. Improve small [screen](#) Toolbox dialog layout(FS#239)
- 207. In RouteManagerDialog, correct distance sorting for Windows platform (FS#178) Thanks nohal.
- 208. Implement Toolbar zoom in/out tooltips. (FS#271)
- 209. Implement [Garmin](#) USB waypoint/route download function for Windows.
- 210. Further improve Toolbox layout for variable sized language strings (FS#263)
- 211. Correct/improve [MOB](#) logic (FS#147, FS#278)
- 212. Correct [screen](#) draw of [AIS](#) target tracks when target is off-screen (FS#258)
- 213. Improve [Serial](#) Port management for orphan handle and thread deletion. (FS#266)
- 214. Correct Toolbar flashing on small window size. (FS#265)
- 215. Correct "\\.\' notation in MessageBox. (FS#268)
- 216. Implement improved S52 symbolization rules. Lots more graphic symbol detail. Thanks Pavel
- 217. Update Translations. Hope I got them all.
- 218. Add Turkish translation Thanks to Yalin Bastanlar!

219. Correct Lat/Lon dialog input format to accept “22 S” as well as “22 00 s” (FS#283)

220. Correct AISTargetList initial drawing size/position and sort algorithm (FS#274)

## Release Beta 1207

### Notes:

209. Lots of new code here. [Garmin](#) users take note. We may still have trouble with Garmin USB hotplugging [events](#), I'm afraid....

217. We can still take last minute translation files, emailed directly to me or posted on the forum. Thanks to all for your efforts on the updates.

218. Another language. Cool....

### General:

This Beta is probably releasable as 2.3. However, I am working on an update to AISTargetList to improve performance and useability.

Also, there is still the “Win7 Prolific driver hanging” issue. I will increase the focus here....

Thanks to all for your patience as we work out the last few nits.

Dave

[OpenCPN](#) Version 2.2 Beta Build 1211 is now available.

### Changelog

221. Improve performance of [AIS](#) Target List Dialog.

222. Correct double chart dir entries in Toolbox→Charts (FS#288)

223. Update S52 symbolization regarding Topmarks. Thanks again, Nohal....

224. Add a few more strings to .pot file. (FS#287, FS#298)

225. Disable ability to delete [MOB](#) point via context menu. (FS#278 redux)

226. Correct point visibility attribute of imported GPX tracks. (FS#253 again)

227. Update some existing translations, add Finnish and Greek.

228. Improve Lat/Lon input string parsing. (FS#286)

## Release Beta 1211

Is this the final Beta ? I think so....

Please check your Flyspray Tasks. I would like to see the list get down to “deferred” issues only for release. These deferred issues will then be moved to the 2.4 Beta program, whenever we are ready to start that process.

Thanks  
Dave

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